

**COMMITTEE ON NATURAL RESOURCES**  
**Disclosure Form**  
**As required by and provided for in House Rule XI, clause 2(g) and**  
**the Rules of the Committee on Natural Resources**

oversight and legislative hearing entitled “Federal Geospatial Spending, Duplication and Land Inventory Management” and on H.R. 4233 (Lamborn), Map It Once, Use It Many Times Act and H.R. 1620 (Kind/Bishop of UT), Federal Land Asset Inventory Reform Act of 2011.  
May 3, 2012

For Individuals:

1. Name: Brian R. Raber, CMS, GISP, GLS
2. Address: [Information redacted for privacy]
3. Email Address: [Information redacted for privacy]
4. Phone Number: [Information redacted for privacy]

\* \* \* \* \*

For Witnesses Representing Organizations:

1. Name:
2. Name of Organization(s) You are Representing at the Hearing:
3. Business Address:
4. Business Email Address:
5. Business Phone Number:

Name/Organization: Brian R. Raber / Merrick & Company

Title/Date of Hearing: oversight and legislative hearing entitled “Federal Geospatial Spending, Duplication and Land Inventory Management” and on H.R. 4233 (Lamborn), Map It Once, Use It Many Times Act and H.R. 1620 (Kind/Bishop of UT), Federal Land Asset Inventory Reform Act of 2011.  
May 3, 2012

a. Any training or educational certificates, diplomas or degrees or other educational experiences that are relevant to your qualifications to testify on or knowledge of the subject matter of the hearing.

See Attached Resume

b. Any professional licenses, certifications, or affiliations held that are relevant to your qualifications to testify on or knowledge of the subject matter of the hearing.

See Attached Resume

c. Any employment, occupation, ownership in a firm or business, or work-related experiences that relate to your qualifications to testify on or knowledge of the subject matter of the hearing.

See Attached Resume

d. Any federal grants or contracts (including subgrants or subcontracts) from the *Department of the Interior (and/or other agencies invited)* that you have received in the current year and previous four years, including the source and the amount of each grant or contract.

None

e. A list of all lawsuits or petitions filed by you against the federal government in the current year and the previous four years, giving the name of the lawsuit or petition, the subject matter of the lawsuit or petition, and the federal statutes under which the lawsuits or petitions were filed.

None

f. Any other information you wish to convey that might aid the Members of the Committee to better understand the context of your testimony.

Name/Organization: Brian R. Raber / Merrick & Company

Title/Date of Hearing: oversight and legislative hearing entitled “Federal Geospatial Spending, Duplication and Land Inventory Management” and on H.R. 4233 (Lamborn), Map It Once, Use It Many Times Act and H.R. 1620 (Kind/Bishop of UT), Federal Land Asset Inventory Reform Act of 2011.  
May 3, 2012

In addition, for witnesses representing organizations:

g. Any offices, elected positions, or representational capacity held in the organization(s) on whose behalf you are testifying.

h. Any federal grants or contracts (including subgrants or subcontracts) from the *Department of the Interior (and /or other agencies invited)* that were received in the current year and previous four years by the organization(s) you represent at this hearing, including the source and amount of each grant or contract for each of the organization(s).

i. A list of all lawsuits or petitions filed by the organization(s) you represent at the hearing against the federal government in the current year and the previous four years, giving the name of the lawsuit or petition, the subject matter of the lawsuit or petition, and the federal statutes under which the lawsuits or petitions were filed for each of the organization(s).

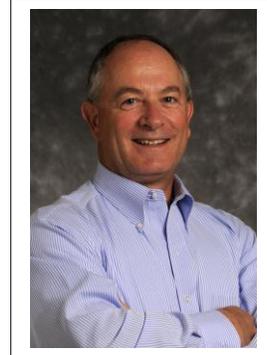
j. A list of any countries from which the organization(s) you represent at the hearing have received foreign donations and the total amount of donations received from each country, for the current year and the previous four years, by each organization.

k. For tax-exempt organizations and non-profit organizations, copies of the three most recent public IRS Form 990s (including Form 990-PF, Form 990-N, and Form 990-EZ) for each of the organization(s) you represent at the hearing (not including any contributor names and addresses or any information withheld from public inspection by the Secretary of the Treasury under 26 U.S.C. 6104)).

## BRIAN R. RABER, CMS, GISP, GLS

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Aurora, Colorado 80014

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Email – [brian.raber@merrick.com](mailto:brian.raber@merrick.com)



### A. EDUCATION

1. University of Idaho, M.S. Geography (1984). Specialized in Production Cartography, Geographic Information Systems, and Computer Assisted Cartography. Masters Thesis: "An Evaluation of Map Projections for Small Scale World Thematic Maps."
2. West Virginia University, B.A. (1980). Specialized in Geography, Cartography, Environmental and Physical Geography.

### B. WORK EXPERIENCE SUMMARY

1. **Merrick & Company** Vice President Aurora, Colorado 1996 – present
  - a. GeoSpatial Solution Business Unit Leader
  - b. Inside Board of Directors 2007-2010
  - c. Senior Project Manager
  - d. Chair - Human Resources Development Committee
  - e. Strategic Planning Committee
  - f. Export Compliance Control – Key Senior Official
  - g. Chair - Merrick International Services, Inc.
  - h. International Strategic Planning Committee
  - i. International Travel and Risk Management Steering Committee
2. **Merrick Advanced Photogrammetry of the Americas (MAPA)** President (wholly owned Merrick subsidiary in Guadalajara and Mexico City, Mexico and Bogota, Colombia) 2001 – present
3. **Merrick & Company** Project Manager Aurora, Colorado 1991 - 1996
4. **AT&T Digital Record Systems** Senior Technical Consultant Boise, Idaho and Denver, Colorado 1990 - 1991
5. **Geographic General, Inc.** Director of Operations Boise, Idaho 1986 – 1989

6. **Boise Cascade Corporation** Boise, Idaho GIS Computer Operator 1982 - 1986
7. **Graduate Assistant and Cart-O-Graphics Laboratory, University of Idaho**  
Cartography Lab Manager and Teaching Assistant, Moscow, Idaho 1981 - 1982
8. **West Virginia Geologic and Economic Survey** Geographer Morgantown, West Virginia 1980-1981
9. **The Historical Atlas of United States Congressional Districts 1789-1983.**  
Draftsman and data compiler under Dr. Ken Martis West Virginia University  
Morgantown, West Virginia 1979 -1980

## **B. PROFESSIONAL LICENSES AND CERTIFICATIONS**

American Society of Photogrammetry and Remote Sensing (ASPRS), Certified Mapping Scientist Certification #GS130, February 26, 1996. Recertified 2001, 2006.

The South Carolina State Board of Registration for Professional Engineers and Land Surveyors, South Carolina GIS Land Surveyor # 24539, October 3, 2005 – present.

GIS Certification Institute, Certified Geographic Information Systems Professional (GISP) Number 23508, October, 2006 - present.

Department of Defense Secret Clearance: Expired

Department of Defense Top Secret Clearance: Active

## **C. PAPERS AND POSTERS PRESENTED/PUBLISHED AND PANEL PARTICIPATION**

The following summarizes the major technical presentation made during my Geospatial career.

1. West Virginia University Alumni Day, Morgantown, WV, April 5, 2011, Presented: Geology and Geography Colloquium – “GeoSpatial Technologies Complement Each Phase Of The Engineering Project Life Cycle”.
2. Management Association of Private Photogrammetric Surveyors (MAPPS) Winter Conference, Freeport, Grand Bahamas, January 26, 2011, Presented: “Winning the Award, How to Benefit by Participating in the MAPPS Excellence Awards Program”.
3. West Virginia University Alumni Day, Morgantown, WV, November 12, 2010, Presented: Geology and Geography Colloquium – “Advanced Geospatial Data Collection Platforms and Applications”.
4. Deltek Insight Annual Users Conference, Washington, D.C., May 18, 2010, Presented: “Going Global, Experiences of a mid-sized engineering and geospatial firm”.

5. Instituto Geográfico Augustin Codazzi (IGAC), Semana de Geomática - 2009, Bogota, Colombia, October 29, 2009, Presented a technical paper on "Applications of LiDAR and Industry Trends".
6. URISA Annual Conference, Anaheim, California, September 30, 2009. Full day workshop instructor for "LIDAR Concepts, Project Design and Practical Applications".
7. The Twenty-ninth Annual ESRI Users Conference, San Diego, California, July 14 2009. Co-presenter in Water Resources Session on, "Development of Data Processing Methods in Difficult Land Geomorphology to Create Robust LiDAR Digital Terrain Models for Water Resource Applications".
8. URISA Annual Conference, New Orleans, Louisiana, October 2008. Full day workshop instructor for "LIDAR Concepts, Project Design and Practical Applications".
9. The Twenty-eight Annual ESRI Users Conference, San Diego, California, August 2008. Presented a technical poster on, "Using LIDAR and Hyperspectral Technologies for Missouri River Eagle Habitat Study". Nominated for "best data integration" poster.
10. Merrick Advanced Photogrammetry of the Americas (MAPA) Third Annual Users Conference, Puerto Vallarta, Mexico, June 26-27, 2008. Presented Key Note Address on the "3-Dimensional Explosion".
11. Merrick Advanced Photogrammetry of the Americas (MAPA) Second Annual Users Conference, Guadalajara, Mexico, May 24-25, 2007. Presented Key Note Address on the "Positive Impacts on Society of a GIS Professional".
12. World Trade Day 2007, Denver, Colorado, May 17, 2007. Presentation on "Starting a New Mapping Company in Mexico - Lessons Learned in Latin America".
13. The Global Spatial Data Infrastructure Association (GSDI) 9th International Conference in Santiago, Chile. November 6-10, 2006. Presented a technical poster on, "LIDAR and Digital Aerial Photography for Environmental and Coastal Applications in Colombia, South America".
14. URISA Annual Conference, Vancouver, British Columbia, Canada, October 2006. Full day workshop instructor for "LIDAR Concepts, Project Design and Practical Applications".
15. The Twenty-seventh Annual ESRI Users Conference, San Diego, California, August 2006. Presented a technical paper on, "Integrating Multi-temporal LIDAR for the Maintenance of Large-Scale Landbase Datasets".
16. The Twenty-seventh Annual ESRI Users Conference, San Diego, California, August 2006. Presented a technical poster on, "LIDAR and Digital Aerial Photography for Environmental and Coastal Applications in Colombia, South America".
17. The Twenty-seventh Annual ESRI Users Conference, San Diego, California, August 2006. Presented a technical paper on, "LIDAR in Water Resources"

18. Obscured Targets Annual Meeting, Davis Monthan Air Force Base, Tucson, Arizona, February 22, 2006. Presented a technical briefing on, "Commercial LIDAR Operations in Colombia, South America"
19. Instituto Geográfico Augustin Codazzi (IGAC), Semana de Geomática - 2005, Bogota, Colombia, August 2005, Presented a technical paper on "LIDAR Quality Control and Ground Truthing".
20. Florida Joint Mapping Conference (FJMC), Sarasota, Florida, May 2005, Presented a technical paper on "LIDAR Quality Control and Ground Truthing".
21. Instituto Nacional de Estadística Geografía e Informática (INEGI), National Conference for Geography 2004, Toluca, Mexico, June 2004, Invited Guest Speaker on "LIDAR Ground Truth Surveying".
22. The Second Annual Seven Hills Regional Users Group Conference, Tallahassee, Florida, December 2003. Presented a technical paper on, "Tallahassee/Leon County LIDAR Updating".
23. URISA Annual Conference, Atlanta, Georgia, October 2003. Presented a technical paper on, "Tallahassee/Leon County GIS Data Partnership".
24. The First Annual Seven Hills Regional Users Group Conference, Tallahassee, Florida, November 2002. Participated in a panel discussion on, "LIDAR Acquisition Issues".
25. The First Annual Seven Hills Regional Users Group Conference, Tallahassee, Florida, November 2002. Presented a technical paper on, "Tallahassee/Leon County Topographic Data Partnership Consulting".
26. The Twenty-first Annual ESRI Users Conference, San Diego, California, July 2002. Presented a technical paper on, "Tallahassee/Leon County Base Map Update Project".
27. URISA Annual Conference, Long Beach, California, October 2001. Workshop co-instructor for "GIS Implementation".
28. The Nineteenth Annual ESRI Users Conference, San Diego, California, July 2000. Co-presented a technical poster, "Taking the Lean Out of the Sears Tower".
29. URISA Annual Conference, Orlando, Florida, August 2000. Full day workshop co-instructor for "Cartography and Map Design".
30. The Eighteenth Annual ESRI Users Conference, San Diego, California, July 1999. Presented a technical paper on, "Digital Terrain Data in GIS".
31. The Eighteenth Annual ESRI Users Conference, San Diego, California, July 1999. Presented a technical paper on, "Opportunities for Innovation: Streamlining the Data Automation Process for the City of Spokane Water Department".

32. URISA Annual Conference, Chicago, Illinois, August 1999. Co-presenter of technical session "City of Lake Forest GIS Implementation Strategies".
33. URISA Annual Conference, Chicago, Illinois, August 1999. Full day workshop co-instructor for "Cartography and Map Design".
34. American Society of Photogrammetry and Remote Sensing (ASPRS) Annual Convention, Portland, Oregon, May, 1999, Presented a technical paper on "Innovative DEM methods for rural Benton County, Washington".
35. GIS/LIS Conference, Fort Worth, Texas, November 1998. Full day workshop co-instructor for "Cartography and Map Design".
36. The Seventeenth Annual ESRI Users Conference, San Diego, California, July 1998. Workshop instructor for a full day workshop titled, "Creating and Integrating Digital Ortho Imagery into Your GIS".
37. American Society of Photogrammetry and Remote Sensing (ASPRS) Annual Convention, Tampa, Florida, Presented a technical paper on "A Photogrammetrist Perspective on Database Maintenance".
38. GIS/LIS Conference, Cincinnati, Ohio, 1997. Joint presentation: "Planning a Long-term GPS network in Delaware County, Ohio".
39. GIS/LIS Conference, Cincinnati, Ohio, 1997. Full day workshop co-instructor for "Cartography and Map Design".
40. The Northwest ARC/INFO Users Conference, Seattle, Washington, 1997. Presented paper: "Photogrammetric and GIS Database Maintenance, Issues and Strategies".
41. American Public Works Association (APWA), Minneapolis, Minnesota, 1997. Presented paper: "Photogrammetric and Survey Data Collection in the 21st Century".
42. Urban and Regional Information Systems Association (URISA), Toronto, Canada, 1997. Full day workshop co-instructor for "Cartography and Map Design".
43. The Sixteenth Annual ESRI Users Conference, San Diego, California, July 1997. Presented a paper: "Photogrammetric Database Maintenance, Issues and Strategies".
44. The Third Annual California GIS Conference, Los Angeles, California, February 1997. Presented a paper: "Softcopy Techniques for Updating Photogrammetric Database".
45. GIS/LIS Conference, Denver, Colorado, 1996. Full day workshop co-instructor for "Cartography and Map Design".
46. GIS/LIS Conference, Denver, Colorado, 1996. Presented a paper: "Softcopy Photogrammetry: The Rapid Process for Maintaining a Photogrammetric Database".
47. Urban and Regional Information Systems Association (URISA), Salt Lake City, Utah, July 1996. Full day workshop co-instructor for "Cartography and Map Design".

48. The Fifteenth Annual ESRI Users Conference, Palm Springs, California, May 1996. Presented a paper: "Engineering Applications and Digital Photogrammetry".
49. Guest Speaker, Society of American Military Engineers (SAME), Albuquerque, NM, September 1996. Presented at monthly meeting: "GIS and Engineering Applications".
50. The 1995 Northwest Conference on Spatial Data, Nampa, Idaho, April 1995. Presented a workshop: "Digital Imagery and Your GIS".
51. The Twelfth Annual ESRI Users Conference. Palm Springs, California, 1994. Presented a paper: "Using Existing Data Sources to Create Cadastral and Planimetric Databases".
52. The Twelfth Annual ESRI Users Conference, Palm Springs, California, 1994. Presented a paper: "Planning, Implementing and Applications of Digital Ortho Imagery".
53. The Eleventh Annual ESRI Users Conference, Palm Springs, California, 1993. Presentation on "Rule Based Parcel Adjustments based on Photogrammetric and Cadastral Evidence".
54. Kiwanis Club of Boise, Speaker of the Day, Boise, Idaho, 1990. Presentation on "The Benefits of Geographic Information Systems (GIS) and Cooperative Landbases".
55. Urban and Regional Information Systems Association (URISA), Boston, Massachusetts, 1989. Delivered a paper on "Comparing conversion methods for land base data by digitizing from orthophotographs and stored photography".
56. The Second Annual GeoBased Systems User Conference, Raleigh, North Carolina, 1989. Presentation on "Creating a parcel basemap using coordinate geometry digitizing and orthophotography".
57. The First Annual GeoBased Systems User Conference, Raleigh, North Carolina, 1988. Presentation on "The Ada County, Idaho multi-participant GIS".
58. Urban and Regional Information Systems Association (URISA), Fort Lauderdale, Florida, 1987, presented a paper on "Privatization of a Cadastral/Photogrammetric database".
59. Urban and Regional Information Systems Association (URISA), Fort Lauderdale, Florida, 1987 presenter: "PC GIS Applications", panel discussion member.
60. The Fourth Pacific Northwest Conference on Digital Technologies, sponsored by ASPRS and IALS, Boise, Idaho 1986. Member of Conference Planning Committee. Presented poster session "Modeling Lake Bottoms for Fishing Success".
61. The Second Annual COMARC User's Group Conference, San Francisco, California, 1985. Presented poster session on "Forestry Applications of GIS, Disease Management". First prize, most analytical poster.

62. American Congress of Surveying and Mapping – American Society of Photogrammetry, ACSM – ASP Fall Convention, Indianapolis, Indiana, 1985. Delivered paper on “Computer Applications for Intensive Forest Management”.
63. The Third Pacific Northwest Conference on Photogrammetry, Remote Sensing and Geographic Information Systems, sponsored by ASPRS, Portland, Oregon, 1985. Delivered paper on “Boise Cascade’s Forest Application of GIS”.
64. Annual Meeting of Association of American Geographers, Denver, Colorado, 1983. Presented poster session on Masters Thesis “Global Map Projections”.

#### **D. PUBLISHED ARTICLES**

The following summarizes the published articles that I wrote during my geospatial and mapping career.

1. Earth Imaging Journal Editorial Board, “State of the Industry Report, What Are the Most Important Forces Shaping the Remote Sensing Industry”, January/February 2012.
2. “Remote Sensing Applied to the Coastal Zone Management. A New Challenge of the Dirección General Marítima”, Wrote Preface and Lessons Learned chapter, English translation editor, published by DIMAR press, Bogota, Colombia, Anticipated December, 2010 printing.
3. Proceedings - 2nd Workshop on Hyperspectral Imaging and Signal Processing, Institute of Electrical and Electronics Engineers (IEEE), “Vegetation Management of Utility Corridors Using High-Resolution Hyperspectral Imaging and LIDAR”, Michael Frank, Zhihong Pan, Brian Raber and Csaba Lenart, Reykjavik, Iceland, June 14-16, 2010.
4. Point of Beginning Magazine, “High Tech Flood Control: LiDAR and aerial imagery provide valuable data for levee recertification in Wichita, Kansas”, pages 2-5, June 2010.
5. Point of Beginning Magazine, “Charging Ahead: Surveying and Remote Sensing Capabilities Energize the Quest for Energy Independence”, pages 2-5, May 2009.
6. Professional Surveyor Magazine, Aerial Mapping Supplement 2009, “Planning, Understanding and Validating LiDAR Accuracy”, pages 12-14, February 2009.
7. GeoWorld Magazine, “Restoring Missouri River Floodplain Habitat: New Remote Sensing Tools Provide Timely, Accurate Inventory, pages 22 – 25, August 2008.
8. GeoWorld Magazine, “Mapping Colombia’s Coastline: LIDAR Helps Preserve Fragile Marine Ecosystems”, pages 36 – 39, June 2007.
9. DEM Manual, David Maune, Contributor and final editor for the LIDAR software chapter. Second edition published January 2007.

10. GeoWorld Magazine, "Untamed Yellowstone: Surveying America's Greatest Naturally Flowing River", pages 22 – 25, July 2006.
11. LIDAR Guidebook: Concepts, Project Design and Practical Applications, A URISA Quick Study Publication, Co-author, published June 2005.
12. GeoSpatial Solutions Magazine, "TLC's LIDAR Land Base, Volume 15, Number 4, pages 22-28, April 2005.
13. ARCADILLO, Texas ARC/INFO Newsletter, "Creating Dynamic Photogrammetric ARC/INFO Database and Process", Summer 1992.
14. GEO INFO Systems Magazine, "Protecting your Budget: Assessing Documents for Map Conversion Projects", May 1991.
15. Public Works Magazine, American Public Works Association, "Common Digital Base Mapping Cuts User Cost in ADA County", Idaho, April 1989.
16. GIS/LIS Proceedings, Orlando, Florida, "Multi-Source GIS Basemap for Forest Management", 1988.
17. Gem State Surveyor, Idaho Association of Land Surveyors. Published paper on "Aerial and orthophotography for the Ada County Digital Basemap, Winter 1987.
18. Gem State Surveyor, Idaho Association of Land Surveyors, "An Innovative Approach for the Ada County Base Map", Spring 1987.
19. Computer Graphics World Magazine, PennWell Publishing Company, "Basemap Subscriptions", December 1987.
20. Gem State Surveyor, Idaho Association of Land Surveyors, "Creating Data Layers for the Ada County Digital Base Map", Fall, 1986.
21. American Congress on Surveying and Mapping (ACSM) – ASP Fall Convention, Indianapolis, Indiana, Paper in proceedings: "Computer Applications for Intensive Forest Management", 1985.
22. Gem State Surveyor, Idaho Association of Land Surveyors, "Boise Cascade is selected to participate on the National Committee for Digital Cartographic Data Standard", Fall 1985.
23. University of Idaho Press, "The Compact Atlas of Idaho", Moscow, Idaho, Cartographer and Graphic Production Assistant, 1983.

## **E. TECHNICAL CONFERENCES**

The following is a list of the major technical conferences that I have attended. I used these conferences as a means of maintaining credentials as an ASPRS Mapping Scientist and GIS professional.

1. DigitalGlobe Americas Partner Conference, Denver Hyatt, Denver Colorado. April 18-19, 2012.
2. International LiDAR Mapping Forum (ILMF), Denver Hyatt, Denver, Colorado. January 23-25, 2012
3. 18<sup>th</sup> William T. Pecora Memorial Remote Sensing Symposium, Hilton Washington Dulles Hotel, Herndon, Virginia. November 14-17, 2011.
4. 2011 GeoEye Global Partner Conference, San Francisco, CA, September 18 – 21, 2011.
5. The Fourteenth Annual ESRI Users Conference, San Diego, California, July 11-14, 2011.
6. The Thirtieth Annual ESRI Users Conference, San Diego, California, July 12-15, 2010.
7. Windpower 2010, American Wind Energy Association (AWEA) Dallas, Texas, May 24 – 26, 2010.
8. Deltek Insight Annual Users Conference, Washington, D.C., May 18, 2010.
9. Management Association of Private Photogrammetric Surveyors (MAPPS) Winter Conference, Maui, Hawaii, January 24–28, 2010.
10. Instituto Geográfico Augustin Codazzi (IGAC), Semana de Geomática Conference - 2009, Bogota, Colombia, October 29, 2009.
11. National States Geographic Information Council (NSGIC), 2009 Annual Conference, Renaissance Cleveland Hotel, Cleveland, Ohio, October 4-8, 2009.
12. 2009 GeoEye Global Partner Conference, Boston, MA August
13. The Twenty-ninth Annual ESRI Users Conference, San Diego, California, July 13-16, 2009.
14. Urban and Regional Information Systems Association (URISA) Annual Conference, New Orleans, Louisiana, October 2008.
15. Leica GeoSystems Factory Tour and Product Preview, Heerbrugg, Switzerland, September 6-16, 2008.
16. The Twenty-eighth Annual ESRI Users Conference, San Diego, California, August 2008.
17. Merrick Advanced Photogrammetry of the Americas (MAPA) Third Annual Users Conference, Puerto Vallarta, Mexico, June 26-27, 2008.

18. U.S. Mexico Building Partnerships in Infrastructure Conference, U.S. Commerce Department and U.S. Trade and Development Agency, Mexico City, Mexico, February 26-28, 2008.
19. The Twenty-seventh Annual ESRI Users Conference, San Diego, California, July 2007.
20. Merrick Advanced Photogrammetry of the Americas (MAPA) Second Annual Users Conference, Guadalajara, Mexico, May 24-25, 2007.
21. World Trade Day 2007, Denver, Colorado, May 17, 2007. Reaching the Peaks of Global Trade.
22. The Fifth Annual Seven Hills Regional Users Group Conference, Tallahassee, Florida, November 2006.
23. Urban and Regional Information Systems Association (URISA) Annual Conference, Vancouver, British Columbia, Canada, October 2006.
24. The Global Spatial Data Infrastructure Association (GSDI) 9th International Conference in Santiago, Chile. November 6-10, 2006.
25. The Twenty-sixth Annual ESRI Users Conference, San Diego, California, July 2006.
26. The Fourth Annual Seven Hills Regional Users Group Conference, Tallahassee, Florida, November 2005.
27. GIS in the Rockies, Rocky Mountain ASPRS, GITA and URISA Chapters, Denver, Colorado, September, 2005
28. Instituto Geográfico Augustin Codazzi (IGAC), Semana de Geomática - 2005, Bogota, Colombia, August 2005.
29. The Twenty-fifth Annual ESRI Users Conference, San Diego, California, July 2005.
30. Florida Joint Mapping Conference, Sarasota, Florida, May 2005.
31. 21<sup>st</sup> National Space Symposium, Colorado Space Coalition, Colorado Springs, Colorado, April 4 – 5, 2005.
32. The Third Annual Seven Hills Regional Users Group Conference, Tallahassee, Florida, November 2004.
33. Comisión Nacional Forestal (CONAFOR), Annual Conference, Guadalajara, Mexico, July, 2004
34. Instituto Nacional de Estadística Geografía e Informática (INEGI), National Conference for Geography 2004, Toluca, Mexico, June 2004
35. Florida Joint Mapping Conference, Dayton Beach, Florida, April 2004.

36. MAPPS Federal Programs Conference, Washington, DC, March 4 – 8, 2004.
37. International LIDAR Mapping Forum (ILMF), Annual Conference, Orlando, Florida, February 2004.
38. The Second Annual Seven Hills Regional Users Group Conference, Tallahassee, Florida, December 2003.
39. Leica GeoSystems Annual Users Group Meeting, Denver, Colorado, August 2003.
40. The Twenty-third Annual ESRI Users Conference, San Diego, California, July 2003.
41. The First Annual Seven Hills Regional Users Group Conference, Tallahassee, Florida, November 2002.
42. The Twenty-second Annual ESRI Users Conference, San Diego, California, July 2002.
43. The Twenty-first Annual ESRI Users Conference, San Diego, California, July 2001.
44. Urban and Regional Information Systems Association (URISA) Annual Conference, Long Beach, California, October 2001.
45. LH Systems Annual Users Group Meeting, San Diego, California, August 2001.
46. Urban and Regional Information Systems Association (URISA) Annual Conference, Orlando, Florida, August 2000.
47. The Twentieth Annual ESRI Users Conference, San Diego, California, July 2000.
48. GITA Annual Conference, Denver, Colorado, April 2000.
49. American Society of Photogrammetry and Remote Sensing (ASPRS) Annual Convention, Portland, Oregon, May 1999.
50. The Nineteenth Annual ESRI Users Conference, San Diego, California, July 1999.
51. Urban and Regional Information Systems Association (URISA) Annual Conference, Chicago, Illinois, August 1999.
52. GIS/LIS Conference, Fort Worth, Texas, November 1998.
53. The Eighteenth Annual ESRI Users Conference, San Diego, California, July 1998.
54. American Society of Photogrammetry and Remote Sensing (ASPRS) Annual Convention, Tampa, Florida, 1998.
55. GIS/LIS Conference, Cincinnati, Ohio, October 1997.
56. The Northwest ARC/INFO Users Conference, Seattle, Washington, 1997.

57. American Public Works Association (APWA), Minneapolis, Minnesota, 1997.
58. Urban and Regional Information Systems Association (URISA), Toronto, Canada, 1997.
59. The Seventeenth Annual ESRI Users Conference, San Diego, California, July 1997.
60. The Third Annual California GIS Conference, Los Angeles, California, February 1997.
61. GIS/LIS Conference, Denver, Colorado, November 1996.
62. Urban and Regional Information Systems Association (URISA), Salt Lake City, Utah, July 1996.
63. The Fifteenth Annual ESRI Users Conference, Palm Springs, California, May 1996.
64. The Second Annual Geo Based Systems User Conference, Raleigh, North Carolina, 1989.
65. The First Annual Geo Based Systems User Conference, Raleigh, North Carolina, 1988.
66. The Third Annual Environmental Systems Research Institute (ESRI) User's Conference, Redlands, California, 1985.
67. Idaho Computer-Aided Drafting and Mapping Conference, sponsored by Idaho State Mapping Advisory Committee, Boise, Idaho, 1984.
68. Idaho State Mapping Advisory Committee Annual Meeting, sponsored by ISMAC, Boise, Idaho, 1983.
69. Western Geographic Names Conference, Seventh Annual Meeting, sponsored by U.S. Geographic Names Board, United States Geological Survey, Boise, Idaho, 1983.
70. Map Reproduction and Map Production Symposium. Sponsored by the American Society of Photogrammetry and the State Mapping Advisory Committee, Seattle, Washington, 1982.
71. U.S. Census Data Users Conference. Sponsored by U.S. Bureau of the Census, Morgantown, West Virginia, 1981.

## **F. CONTINUING EDUCATION PROGRAMS**

The following is a list of the formal programs that I attended over the recent past to help me maintain my technical and management qualifications as an ASPRS Certified Mapping Scientist and GIS/LIS professional.

1. Effective Negotiations (16 hours), Presented by Steven Isaacs, FMI, Aurora, Colorado, August 16 – 17, 2011
2. Merrick Learning Institute, Networking Skills (2 hours), Presented by David Stone, Aurora, Colorado, July 27, 2010
3. Merrick Learning Institute, Ethical Dilemmas (2 hours), Aurora, Colorado, May 29, 2009
4. ZweigWhite, Pathway to Principal (16 hours), Denver, CO, June 11-12, 2009
5. Merrick Learning Institute, Project Manager Training (3 hours), Aurora, Colorado, August 26, 2008
6. Merrick Learning Institute, Project Cost Training (2 hours), Aurora, Colorado, March 5, 2008
7. Merrick Learning Institute, Burlington Project Lessons Learned (2 hours), Aurora, Colorado, October 1, 2007
8. Merrick Learning Institute, MARS Software Training Utilization (2 hours), Aurora, Colorado, July 12, 2007
9. Merrick Learning Institute, Small Business Subcontracting Plans and Utilization (1 hour), Aurora, Colorado, May 4, 2005
10. Merrick Learning Institute, Introduction to Financial Management (3 hours), Aurora, Colorado, August 2, 2005
11. Merrick Learning Institute, Personal Accountability, The Question Behind the Question (8 hours), Aurora, Colorado, August 3, 2005
12. Merrick Learning Institute, Litigation Lessons Learned (2 hours), Aurora, Colorado, October 19, 2005
13. Merrick Learning Institute, Risk Management During the Proposal Process (2 hours), Aurora, Colorado, December 7, 2005
14. DPIC Contract Review Course (3 hours), Aurora, Colorado October 15, 2001.
15. ESRI, What's New in ArcInfo version 8, one-half day seminar at ESRI Business Partners Conference, Palm Springs, CA, March 2000.
16. DPIC, one-half day seminar on "Contract Preparation", Denver, CO, April 1999.
17. ERDAS, one day workshop on Remote Sensing and Digital Image Processing, San Diego, CA, July, 1998.

18. PSMJ "Project Manager Boot Camp", two day seminar Denver, CO, December 1998.
19. GIS/LIS Conference, Fort Worth, Texas, November 1998. Attended one day "GIS Implementation" workshop so I would be able to backup instructor for URISA.
20. Dag Knudsen, two day marketing seminar on "Preparing Winning Presentations", Minneapolis, MN, March 1997.
21. PSMJ Project Managers Bootcamp, Aurora, Colorado, December 12-13, 1997.
22. DPIC Contract Review and Revision (3 hours), Aurora, Colorado January 27, 1997.
23. Purchased the Airborne GPS Video seminar from ASPRS in 1996. Sponsored "brown bag lunches" for my technical staff and myself to review this technology.
24. Project Management Training, Michigan State Corresponding Courses, 1987-1988.
25. Urban and Regional Information Systems Association (URISA), 1987 Fort Lauderdale, Cadastral Mapping Workshop.
26. Britton-Lee SQL Application Training Course, Los Gatos, California, 1987
27. URISA, 1986, Denver, Photogrammetric Workshop.
28. Britton-Lee, System Administration Training Course, Los Gatos, California, 1986.
29. Environmental Systems Research Institute (ESRI), GIS User Training Session, Boise, Idaho, 1985.
30. Data General AOS/VS Operating System Training Course, Los Angeles, California, 1985.
31. COMARC Systems User and Project Management Training Session, Boise, Idaho, 1983.

## **G. AWARDS RECEIVED**

As a GIS practitioner and GeoSpatial Project Manager I have received several internal awards from Merrick & Company and external awards from ACEC, MAPPS and other organizations for the research and exemplary projects that I have been involved with. These awards are summarized below.

1. DigitalGlobe Latin American Partner Conference, "Innovator of the Year" award. Denver, Colorado, April 18, 2012.
2. Merit Award, American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Goldwater Bombing Range Survey project (USACE Mobile District), Denver, Colorado, November, 2011.

3. Merit Award, American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Airfield Safety Assessment project at Dobbins Air Reserve Base, Denver, Colorado, November, 2011.
4. National Finalist Award, American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Technology Soars in Conservation Management, Washington, DC, April 1, 2011.
5. Engineering Excellence Awards (First Place), American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Technology Soars in Conservation Management, Denver, Colorado, November, 2010.
6. National Honor Award - American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Preventing Future Floods – Wichita Levee Re-certification, Washington, D.C., April 26, 2010.
7. DigitalGlobe Latin American Partner Conference, “Innovator of the Year” award. Broomfield, Colorado, March, 2010.
8. Geospatial Excellence Award – Project of the Year, Management Association of Private Photogrammetric Surveyors (MAPPS), Preventing Future Floods – Wichita Levee Re-certification, MAPPS Fall Conference, San Antonio, Texas, November, 18, 2009.
9. Geospatial Excellence Award – First Place Airborne and Satellite Acquisition Category, Management Association of Private Photogrammetric Surveyors (MAPPS), Preventing Future Floods – Wichita Levee Re-certification, MAPPS Fall Conference, San Antonio, Texas, November 18, 2009.
10. Engineering Excellence Awards (First Place), American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Preventing Future Floods – Wichita Levee Re-certification, Denver, Colorado, November 2009.
11. National Finalist Award, American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Bi-National Geospatial Teamwork Saves Lives and Property in Juarez, Mexico, Washington, D.C., April, 2009.
12. Received the Merrick Way Award (previously Presidents Quality Award) for the Small Project Category (under \$250,000), F.E. Warren Air Force Base GPS Project, November, 2008.
13. Honors Awards (Second Place), American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Bi-National Geospatial Teamwork Saves Lives and Property in Juarez, Mexico, Denver, Colorado, November 2008.
14. National Finalist Award, American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Using LIDAR and Hyperspectral Technologies for Missouri River Eagle Habitat Study, Washington, D.C., May, 2008.

15. Geospatial Excellence Awards – Project of the Year, Management Association of Private Photogrammetric Surveyors (MAPPS), Colombian Coastline LIDAR and Digital Photography Project, Bogota, Colombia, July 2007.
16. Geospatial Excellence Awards – First Place Airborne and Satellite Acquisition Category, Management Association of Private Photogrammetric Surveyors (MAPPS), Colombian Coastline LIDAR and Digital Photography Project, Bogota, Colombia, July 2007.
17. Engineering Excellence Awards (First Place), American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Using LIDAR and Hyperspectral Technologies for Missouri River Eagle Habitat Study, Denver, Colorado, November 2007.
18. State of Colorado Governor's Award for Excellence in Exporting “2007 Exporter of the Year” in the professional services category. World Trade Day 2007, Denver, Colorado, May 17, 2007.
19. National Finalist Award, American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Colombian Coastline LIDAR and Digital Photography Project, Washington, D.C., May, 2007.
20. Engineering Excellence Award (First Place), American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Colombian Coastline LIDAR and Digital Photography Project, Denver, Colorado, November 2006.
21. DigitalGlobe Outstanding Achievement Award, Fourth Place in overall U.S. Satellite Sales. Longmont, Colorado. 2006
22. DigitalGlobe Project of the Year in North America. City of Sarasota, Florida project for evasive tree species identification in hurricane access routes (PBS&J was Merrick’s client). Longmont, Colorado. 2006
23. National Finalist Award, American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Yellowstone River LIDAR and Bathymetric Project, Washington, D.C., May, 2006.
24. Engineering Excellence Awards (First Place), American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Yellowstone River LIDAR and Bathymetric Project, Denver, Colorado, November 2005.
25. Received the Merrick President’s Quality Award for the San Francisco Bay Area LIDAR and Bathymetric Project, November 2005.
26. DigitalGlobe Business Partner of the Year – Most Improved Performance in North America. Longmont, Colorado. 2005
27. Received the Merrick President’s Quality Award for the Tallahassee/Leon County Topographic LIDAR Project, 2003.

28. National Finalist Award, American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Tallahassee/Leon County Topographic LIDAR Project, Washington, D.C., 2003.
29. Engineering Excellence Award (First Place), American Consulting Engineering Companies (ACEC), Survey and Mapping Division, Tallahassee/Leon County Topographic LIDAR Project, Denver, Colorado, 2002.
30. Runner-up for the Merrick President's Quality Award for the Town of Amherst, Massachusetts "Multi-agency GIS Database Project", 2000.
31. Received the Merrick President's Quality Award for the Pottawattamie County, Iowa "Total GIS Integration Project", 1999.
32. Received the Merrick President's Quality Award for the City of Spokane, Washington Project, 1998.
33. Received the Merrick President's Quality Achievement Award for the US Army Corps of Engineers - Omaha District Projects, 1996.
34. The Second Annual COMARC User's Group Conference, San Francisco, California, 1985. First Place award for most analytical poster on "Forestry Applications of GIS, Disease Management".

## **H. Professional GIS and Industry Associations and Volunteer Committees**

I am presently an active member of: ASPRS, FSMS, MAPPS, URISA, GITA, Rocky Mountain Chapter of ASPRS, and the Professional Land Surveyors of Colorado (PLSC).

In addition to being a member of several professional organizations, I have also volunteered my expertise and time to ASPRS, MAPPS and URISA. The following summarizes the positions I have held (or currently hold).

1. Management Association of Private Photogrammetric Surveyors (MAPPS), Board of Directors, 2011-present.
2. Management Association of Private Photogrammetric Surveyors (MAPPS), International / Exporting Committee, 2010-present.
3. Management Association of Private Photogrammetric Surveyors (MAPPS), Excellence Awards Committee, 2011-present.
4. Workshop Coordinator for the URISA LIDAR Workshop being presented at the Annual and Regional meetings 2006 - present.
5. West Virginia University Geography and Geology Department Visiting Advisory Committee, Morgantown, West Virginia, 2008 - present
6. Management Association of Private Photogrammetric Surveyors (MAPPS), Sustaining Member, 2002-present.

7. Florida Surveying and Mapping Society (FSMS), Sustaining Member, Northwest Florida Chapter, 2000-present.
8. ASPRS on the Mapping Scientist GIS/LIS Certification "Peer Review" Committee for twelve years from 1996 - 2008.
9. Association of State Floodplain Managers. Business Partner. 2006 – present.
10. Served URISA from 2000 - 2001 as the Cartography Workshop Coordinator for the Annual and Regional Conferences.
11. Served URISA from 1998 – 1999 as Associate Cartography Workshop Coordinator for the Annual and Regional Conferences.
12. Served on the Board of Directors from 1997 – 1998 for the University of Idaho Alumni Association.
13. Hosted a Technical Tour of Merrick's Photogrammetry, Survey and GIS facility during the GIS/LIS Conference, Denver, Colorado, November 1996.
14. The Second Annual Geo Based Systems User Conference Planning Committee, Raleigh, North Carolina, 1989.
15. The First Annual Geo Based Systems User Conference Planning Committee, Raleigh, North Carolina, 1988. Conference planning committee, The Fourth Pacific Northwest Conference on Digital Technologies, sponsored by ASPRS and IALS, Boise, Idaho 1986.
16. Conference planning committee, the Second Annual COMARC User's Group Conference, San Francisco, California, 1985.
17. Idaho Computer-Aided Drafting and Mapping Conference Planning Committee sponsored by Idaho State Mapping Advisory Committee, Boise, Idaho, 1984.
18. Idaho State Mapping Advisory Committee Annual Meeting Planning Committee, sponsored by ISMAC, Boise, Idaho, 1983.